Preserve

App. F. IX-4

1927.

File No. 87-27

Previous References

(P.P. ✓)

Serial Nos. 1 to 3

PRESERVED

Later References

P P 87-27-7, 8, 10, 11, 13 to 26.

P.P. 121-27-7 to 13

P-160

General and Revenue Secretariat.

Serial Nos. 1 to 3

Part B for April 1928.

SUBJECT

Supply of Electric Power to Madras Govt for the Metur Dam Works.

(For Disposal by rapid. Circulation)

No. C.253

.....1917-28.

GENERAL AND REVENUE SECRETARIAT.

COUNCIL MATTER.

SUBJECT.

Supply of Electric Power to Madras Government, for the Metur Dam Works.

CIRCULATED TO THE MEMBERS OF COUNCIL.

By Order,

31st January .....1928.

Chief *Secretary to Government.*

6173/31/1 **Extraordinary Member of Council.**

First Member of Council. 1/2/28

4232/1.2 **Second Member of Council.** 1/2/28

7216/31.1. **Third Member of Council.** 31.1.28

WB-2670—GPB—1,000—11-5-17

DEWAN'S OFFICE.
Received on
30. JAN. 1928
Reg. No. 734

Office of the Dewan of Mysore,

NOTE.

Dated 30th January *192* 8.

Supply of Electric Energy from Sivasamudram to Metur.

.....

The accompanying file of papers on the above subject, ending with D.O. letter of the 28th January 1928, to the Dewan from Mr. F.B. Evans, Secretary to the Government of Madras, Public Works Department is forwarded, with compliments, to the Chief Secretary to Government for favour of rapid circulation to the Members and putting up a draft reply to the Residency. The papers have to be submitted to His Highness.

Dewan.

30-1-28

General and Revenue Secretariat. | File No. of 192

Serial No.

I have perused the draft agreement and the papers connected with the supply of electri-cal energy from Sivasamudram to Metur.

From the correspondence it is clear that the Madras Government are prepared to accept the Mysore standard practice and "for this purpose to relax under rule 103 of the Rules under the Act, provisions of rule 61 and such other of rules 36 and 102 as may be necessary". They have also stated that the electrical Inspector will be instructed to report all cases wherein he differs from the Mysore Chief Electrical Engineer for orders of Government. I think it is unsafe to leave these important matters to the correspondence alone and the correspondence is rather vague in that the Madras Government have only indicated the line of action to be taken in case of difference of opinion between the Electrical Inspector and the Chief Electrical Engineer to Mysore and the action proposed to be taken by them on the report is not indicated in the correspondence.

As observed by Sir Charles Todhunter any profit that we make will in effect be greatly minimised if the Electrical Inspector and other authorities insist upon due fulfilment of the rules made by the Government of India, especially rules 62, 63, 64 and 66. Any agreement made by the Madras Government to the effect that they would not enforce these

NOTE—Contn. sheet

WD 0324—GPB—60,000—24-5-27

General and Revenue Secretariat. | File No. of 192

Serial No.

Rule 10 3 Sec 68 Indian Electricity Act

rules will be void under Section 23 of the Contract Act, for, such agreement has the effect of defeating the provisions of any law. Hence I have suggested a new provision to the effect that any changes in the standard practice that is agreed by both parties that may be required by the provisions of anyrule having the force of law should be attended to or effected by the Madras Government at their own cost. This will effectively prevent unnecessary interference by the Electrical Inspector on the transform, line to be put up in the territories of Madras.

I have also added the words vis major in the penalty clause to provide for accidents occurring beyond the control of Mysore Government.

I have inserted a covenant to the effect that the Madras Government should reimburse the Mysore Government in respect of any income-tax leviable by the Government of India on the earnings ~~of~~ made by the Mysore Government in the supply of power.

I have also added a covenant that the Mysore Government should be freed from ~~all~~ payment of any compensation or royalty to the Madras Government for works carried on on the lines belonging to Madras Government.

I have also suitably altered the arbitration clause by which each party should appoint an arbitrator to decide any question of

NOTE—Contn. sheet

WD 0324—GPB—60,000—24-5-27

General and Revenue Secretariat. | File No. | of 192 | C253

Serial No.

dispute and in the event of difference of opinion between these two arbitrators the matter should be referred to an umpire to be appointed by the Government of India.

With these alterations the agreement ma be approved.

Dewan
Thro Chief Sec[y].

8/9
9.2

After further discussion with the Chief Electrical Engineer and Sec[y] El Dept and Legal Remembrancer, I have put up a draft reply to the Resident with a statement of the charges proposed in the draft agreement sent by Messrs Gov[t].
A D.O. N[o] is also put up

Thro Member

DRM
11/2

Dewan

KG
11/2

PS/

PM
12-2-28

NOTE—Contn. sheet

WD 0324—GPB—60,000—24-5-27

Submitted to His Highness.

These papers relate to the supply of electric power to the Madras Government for the Metur Reservoir Works.

2. The papers about the preliminary arrangements for the supply of electric power to the Madras Government for Metur Dam Works were submitted to His Highness with the Third Member's Final Note dated the 19th November 1927. Since then, the Madras Government have forwarded a draft agreement through the Residency regarding the supply of power.

3. The papers were circulated to the Members of Council and draft agreement has been revised in accordance with the views of the Chief Electrical Engineer and the Legal Remembrancer.

4. A draft letter forwarding the revised draft agreement to the Residency for transmission to the Madras Government is submitted for His Highness's gracious approval.

Mirza M. Ismail

Camp Mysore,
12th February 1928.

S.N.

Record of Cases submitted for the Orders of His Highness the Maharaja.

Subject.

Supply of electric power to the Madras Government for the Metur Reservoir Works.

Order.

C. Secy
MG
15-2-28

approved by His Highness
M'lm
14/2/28

D.O. No 154
18/2

THE PALACE,

MYSORE.

February 14th, 1928.

My dear Mirza,

In returning herewith the file relating to the supply of electric power to the Madras Government at Metur, may I point out that the draft letter and draft agreement (Flag K) do not appear to be quite in accordance with one another, since the latter includes clauses which the former states that it is not necessary to embody in the agreement?

May I add that personally I think it is best to have the whole of the matter in the agreement?

May I suggest a further very small verbal change namely, to substitute the word 'send' for the word 'submit' in clause 12 ?

Yours sincerely,

G Rodriguez

15/2

Issue as above
16/2

General and Revenue
Secretariat.

C 253

SUBJECT

Supply of Electric power to the Madras Govt for the Metur Reservoir works.

(*)

31. All urgent or confidential files returned with His Highness' orders may, in the absence of instructions or indications to the contrary, be ordinarily circulated to the Members of Council for perusal after the issue of orders.

33. The Secretaries concerned should see that orders in the cases referred to above are issued at once and that the files are returned immediately after to the Chief Secretary for circulation to the Members.

34. In all other cases, the files will first be circlated to the Members of Council at headquaters and then sent to the Secretariat coneerned for the issue of orders.

Circulated to Members of Council for perusal of His Highness' orders ~~before~~ /after issue of orders.* (*Vide* Rules 31, 33 and 34 of the Subsidiary Rules for the conduct of business of Council in the Manual of Council Rules and Procedure.)

By Order,

Chief Secretary to Government.

Through the Secretary to Government,

.....Department.

6811/18/2

FIRST MEMBER OF COUNCIL. 20/2/28

4698/20/2

SECOND MEMBER OF COUNCIL. 21/2/28

8176/24/2

More

~~EXTRA~~/MEMBER OF COUNCIL. 24/2

NOTE - Contn. sheet.

General and Revenue Secretariat. P.P. File No. 87 of 1927.

Serial No. 3

To

The Secy to the Resident
No Pol 961 of 17/2/28
forwarding for
transmission to the Madras
Govt a revised draft
agreement

NOTE—Contn. sheet

WD 0324—GPB—60,000—24-5-27

Letter No.C1.1106, dated the 1st November 1927 from the Chief Electrical Engineer in Mysore, Bangalore, to the Engineer-in-Chief, Metur Project Works.

***

Your telegram of the 28th October was received by me o my return from Mysore and I would be glad if you would kindly let me know what rate per unit you have in mind for the power delivered to you at 50 cycles, 3300 volts and 3 phase at Mete

When I was down at Metur the other day, you said that were getting data from the Sukkur Barrage as to the cost of their power, which figures you said you would let me have for comparison with our rates and determining if the undertaking would be profitable to us.

If you will name a rate which you are prepared to pay for our power delivered as above, this will then serve as a basis for further negotiation. Your visit to Bangalore suggested in my telegram dated the 27th October, was for the definite purpose of our discussing and settling a rate which wo be equitable both to the Mysore Government and the Metur Proj I believe, in a personal discussion, we could now arrive at a rate satisfactory to both of us and would be glad to hear fro you if you can come up to Bangalore.

***

Letter No.1391-M/442-A dated the 3rd November 1927, from the Engineer-in-Chief, Metur Project Works, to the Chief Electrical Engineer in Mysore, Bangalore.

***

With reference to your letter of the 1st November, (D.O.No.Cl.1106, dated the 1st November 1927), I give you below my calculations of what seems to me a reasonable rate for you to charge us.

1. Our probable requirements are as follows:-

   Maximum 3000 K.W. for 12 hours daily (280 working days a year).
   Average 2000 K.W. for 12 hours daily for 4¼ years.
   Much smaller supply from December 1928 to March 1929 inclusive and a very small load at night throughout the period.
   Gross about 26 million units spread over five years from 1st December 1928 to 30th November 1933.

2. If you deliver power at Metur at 3300 volts, 50 cycles, your capital outlay might be eight lakhs.

   You will require interest on this capital outlay at about 6 per cent. or 30 per cent. for the period of five years.

   The depreciation of your plant may average 6 per cent. or a further 30 per cent. for the period.

   Maintenance at 1½ per cent. would be 7½ per cent. for the period.

Thus you would require a return of 67½ per cent. on eight lakhs.

3. Actual cost to you therefore appears to be -

26 million units at 0-2 anna a unit (said to be your probable cost at Mekadatu	..	3.3 lakhs.
Interest, depreciation and maintenance on transmission line, etc., 67½ per cent. of 8 lakhs.	..	5.4 do.
If you take a profit of 1.7 lakhs over the period	..	1.7 do.
Then you want a gross return of		10.4 do.

4. 26 million units must pay 10.4 lakhs or 0-4 anna per unit and the transmission line and conversion plant is yours at the end of the period.

5. The Sukkur figures arrived yesterday and prove to be of no value as their maximum load at present has not exceeded 20 per cent. of full load.

The English Electric Company expect we shall develop power at 0-44 anna per unit at full load.

6. If your charge exceeds 0.45 anna we shall gain no advantage by the proposed transfer of generation to Sivasamudram, and there is extra risk of failure. I have shown above that 0-40 anna provides you with a reasonable profit. If you are prepared to consider a deal on the above basis, I will send Henshaw to Bangalore for settlement of terms on which I can approach the Madras Government.

7. We are on the point of ordering two more Compressors (each 105 H.P-) for which oil engines will be ordered if we do not come to terms within the next two or three weeks.

D. O. No. 1648.

OFFICE OF THE CHIEF ELECTRICAL ENGINEER
TO THE GOVT. OF MYSORE.

Bangalore 19th Nov: 1927.
(S. India.)

Dear Mr. Balasundram Iyer,

I am attaching herewith in duplicate a draft letter to Mr. Mullings, Chief Engineer of the Metur Project for your approval. As soon as I have received your approval, I will have it fair copied and send it to Mr. Mullings.

Yours sincerely,

S G Forbes

C. S. Balasundram Iyer, Esq., B.A.,
Third Member of Council
in Mysore,
BANGALORE.

SGF-CSC.

Dayo appd.
CSI
19/11/27

DEWAN'S OFFICE.
Received
19. NOV. 1927
Reg. No. 3300

From

The Secretary to Government,
Electrical Department,
Bangalore.

To

The Chief Electrical Engineer to
the Government of Mysore,
Bangalore.

No. D. 150

No.E.D.S. 412

Submitted to the Third Member of Council, for information.

Dated 6th December 1927.

K. O. Seshachar

Secretary to Government,
Electrical Department.

Bangalore
5th December 1927.

Subject:- Supply of electric power to the Madras Government for the Metur Reservoir Works.

Copy
7/12

Sir,

Flag P

With reference to your letter No.1648 dated the 19th November 1927 addressed to the Third Member of Council on the above subject, I am directed to return herewith, duly approved by Government, the accompanying draft letter proposed to be sent by you to Mr. C.T. Mullings, Chief Engineer of the Metur Project Works.

Return receipt Blue
Chief Engrs. note.

Flag P

I have etc.,

Secretary to Government,
Electrical Department.

DRAFT APPROVED BY GOVERNMENT.

D. O. No.....

Dear Mr. Mullings,

I have your No. 1391-M/442-A2 dated the 3rd instant, and in reply would point out that the capital expenditure which would have to be incurred by us is not Rs 8/- Lakhs, but Rs 11¼ lakhs. Rs 8 lakhs is the estimated cost of the transmission line from the Mysore-Madras frontier to Metur and the receiving and transformer station to which will have to be added the estimated cost of Rs 3¼ lakhs for the high tension switching equipment which will have to be installed at Khankanhally and the transmission line from Khankanhalli to the Mysore-Madras frontier.

2. However, we are prepared to supply power to you at 50 cycles and 3300-volts at Metur, provided we get a gross return of Rs 4 lakhs as mentioned in your letter under reply for the supply of 26 million units, and which you have figured out on a capital expenditure of Rs 8 lakhs. This return has been figured out approximately correctly by you, but the rate of 0.4 of an anna mentioned by you is not the correct rate for this return on 26 million units.

The rate mentioned in paragraph 4 of your letter under reply is not 0.4 of an anna per unit, but is 0.64 of an anna per unit.

3. We would be prepared to supply power as mentioned above at an average rate of 2000 K.W. for 12 hours daily for not less than 4¼ years subject to a maximum of 3000 K.W., and a minimum consumption of 300,000 units in a month after about the 1st March 1929 and at the following rates:-

(1) Up to 400,000 units per month @ 0.75 of an anna per unit

(2) 400,000 to 450,000 units per month @ ..... 0.7 Do.

(3) 450,000 to 500,000 units per month @ ..... 0.65 Do.

(4) 500,000 units and above per month @ ..... 0.6 Do.

4. The 50% minimum would not apply for the period, say from December 1928 to March 1929, during the erection and putting into operation of your construction plant.

5. From the data in my office, I cannot find any concern who have reduced their cost of generating and delivering power below ¾ of an anna per unit when the power is generated with coal or oil. I would not expect any concern to generate their power below ¾ of an anna per unit, unless they were very favourably located in or near oil or coal fields, and I therefore feel that the 0.44 of an anna per unit mentioned in the last clause of the 5th paragraph of your letter is a very unusually low rate for a relatively small isolated generating station situated at a very great distance from its fuel supply.

6. I would be very glad to hear from you at the earliest possible date, if you are agreeable to the above proposal.

Yours Sincerely,

(Sd) S. G. Forbes,

To

C. T. Mullings, Esquire,

C h i e f E n g i n e e r,

Metur Project Works.

D 02348 / Encl letters

PRIVATE SECRETARY TO THE DEWAN MYSORE

Bangalore.

8th December 1927.

Dear Mr. Seshachar,

Flag J In enclosing Mr. Forbes' D.O. letter No. Cl.1112 dated the 7th December 1927 forwarding a copy of Flag E his letter addressed to Mr. Henshaw about supply of electric power to Mettur project, I write to say that the Dewan desires that the papers may be submitted for His Highness's perusal. May I request you to kindly submit to the Dewan all the connected papers with a draft submission note?

Yours sincerely,

M R Ramaswamy Iyer

8.12.27

D. O. No. C. 1112. 31/

OFFICE OF THE CHIEF ELECTRICAL ENGINEER
TO THE GOVT. OF MYSORE.

Bangalore 7th December 1927.
(S. India.)

Dear Mr.Mirza,

I am sending herewith a copy of the letter which I wrote Mr.L.Henshaw, Executive Engineer, Cauvery Metur Project.

If this offer is accepted and if Balege poles are used for the transmission line, it will be absolutely essential that the poles be supplied completely by the end of March 1928 and that a substantial supply is made by or before the 15th January 1928. If the Forest Department cannot meet this, we will then have to use steel poles.

Yours sincerely,

SGF-PRN.

To
Amin-ul-mulk
Mirza M.Ismail,Esq.,B.A
C.I.E., O.B.E.,
Dewan of Mysore,
Bangalore.

IN REPLY REFER TO
No. C 1111
ENCLO.

Telegraphic Address:
"GOMED"

Codes Used
BENTLEY'S LIEBER'S
A. B. C. 6TH EDITION
BUSINESS TELEGRAPH CODE.

GOVERNMENT OF MYSORE

ELECTRICAL DEPARTMENT

—o—

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,

Bangalore 6th December *192*7

(MYSORE, INDIA.)

From
S.G.Forbes,Esq., E.E., B.Sc.,&c.,
Chief Electrical Engineer
to the Government of Mysore,
B A N G A L O R E.

To
L.Henshaw,Esq.,
Executive Engineer,
Workshop & Machinery Division,
Cauvery Metur Project,
CAMP, BANGALORE.

Sir,

Power Supply to Metur Project.

I have your letter dated Camp, Bangalore 4th December 1927 and in reply thereto have the honor to make an offer for the supply of your power requirements for the Metur Dam Works under the terms and conditions as will be detailed below and would be glad if you would kindly let me know at the earliest date possible if this proposal under the terms and conditions is accepted. As the power to the extent of about 1000 H.P. will be required by about the 30th September 1928, it will be absolutely necessary to start the work before the end of December 1927.

II. If considered necessary, a formal agreement can be completed in due course after the work has started, however, the acceptance of this proposal should be intimated formally to the Mysore Government through the Office of the Hon'ble the British Resident in Mysore.

III. With regards to compliance with the Indian Electricity Act in Madras Territory, I would say that the

installation of the apparatus in the Receiving and Step-down Station will be in accordance with the rules providing for such installations, but the overhead transmission line will be designed and constructed in accordance with standard practice and shall be, what I consider, safe and sound construction. The interpretation of the Indian Electricity Act should rest with the Electrical Engineer for the Project and the Chief Electrical Engineer for the Mysore Government.

The Mysore Government to be treated with respect to their works in Madras Territory as a Licensee under the Indian Electricity Act of 1910 and the rules thereunder and be granted the powers of a Telegraph authority under Section 51.

All cases of offenses committed by or against the Licensee's employees and works, or by a private individual, will be dealt with by proper local authority of the Madras Government.

The Mysore Government is not to be charged for compensation or royalty in any shape or form on account of their works on Government land within the Madras Territory.

IV. (1) The power will be supplied and measured in BOARD OF TRADE UNITS (B.O.T.U) on Consumer's premises at Metur at 3300 volts, 3 phase, 50 cycles.

(2) Integrating K.W.hour meters to be provided by Licensee and Consumer respectively on the same panel, the Licensee to provide space on his panel for this purpose, the wiring for both meters. Average readings to be taken for the purpose of payment save in the case of disputes the disputed figure shall be temporarily adopted or the case shall be referred, for settlement, to the Professor of Electrical Technology of the Indian Institute of Science, Bangalore, and the Electrical Inspector to the Government of Madras, the loser bearing the cost of such reference.

(3) The normal peak load not to exceed 3500 K.W. at or above 0.8 power factor; however, short peaks up to 4500 K-va will be permitted.

(4) The average demand of 2040 K.W. approximately, at or above 0.75 power factor will be available normally for 12 hours per day and upon 24 hours notice by telephone for 24 hours per day. The service will be continuous day and night. This supply will be taken and consumed for a period of not less than 60 months, beginning from the date the construction plant is ready for service.

(5) The charges to be based according to the following sliding scale.-

(a) Minimum charge - 300,000 Units per month

(b)	Up to 374,000 B.O.T.U.	0.75 of an anna per unit	
	375,000 to 399,999	"	0.725 "
	400,000 to 424,999	"	0.700 "
	425,000 to 449,999	"	0.675 "
	450,000 to 474,999	"	0.650 "
	475,000 to 499,999	"	0.625 "
	500,000 to 524,999	"	0.600 "
	525,000 to 549,999	"	0.575 "
	550,000 and above	"	0.55 "

(c) The above day-light rates for 12 hours, [illegible] a.m. to 6 p.m., or 7 a.m. to 7 p.m., or any other intervening period of day 12 hours to be agreed upon from time to time to suit the consumer's works at Ketur, and also for the normal night consumption.

(d) For all power consumption after the period referred to in (c) above, the rate per unit shall be 0.40 annas per unit for the power consumed during any period of not less than 8 hours in which the actual construction plant works.

(e) The minimum charge, namely, 300,000 units at 0.75 of an anna per unit will not apply until all heavy motor-driven construction plant is erected and ready for use, the rate meanwhile being 0.75 of an anna per unit consumed. Consumer will notify the Licensee when all heavy motor-driven construction plant is erected and ready for service and the payments for a period of not less than 60 months thereafter, shall be according to 5(a) & 5(b)

V. The penalty for power supply stop age shall be

(a) Rs.1000/- per hour or part of an hour after one hour during the working periods of the construction of the plant.

(b) Rs.100/- per hour or part of an hour after one hour when the construction plant is not working.

provided, however, that no penalty is payable if the stoppage is due to causes beyond the supplier's control such as war, riots, storms, floods, &c.

VI. The power supply will be made to Metur from the Generating Station at Sivasamudram where there will be, in September 1928, installed 50,000 E.H.P. in generators and 50,000 K.va in step-up transformers with all auxiliary apparatus and plant in duplicate. The power will be transmitted to Kankanhalli over quadruple lines at 75000 volts where the high-tension switching equipment is in duplicate and will be stepped down to 37500 volts by means of step-down auto-transformers with a total capacity of 15,000 K-va. The power will be transmitted thence to Metur over duplicate transmission lines and there stepped down to 9200 volts, 3 phase, 25 cycles, by means of three 9200 K-va transformers,

4th transformer as a spare. The power will be converted from 2200 volts, 25 cycles to 3300 volts, 50 cycles by means of three 1500 K-va motor-generator sets. The generator voltage will be maintained constant by means of suitable generator voltage regulator. All of the switchgear will be of ample rupturing capacity and with the factors of safety provided throughout the whole of the Cauvery Power Scheme.

VII. Power supply to the extent of 1000 H.P. for both day and night will be made within 9½ months from the date of notification of the acceptance of this proposal.

The full supply will be ready within 4 months thereafter.

(NOTE:- A good deal of the plant for this work is already on hand which will be diverted from other works now in progress. The only special plant that will have to be imported is the motor generator sets.)

VIII. The Government of Madras to reserve in their existing power house at Metur three complete 20 feet bays to the full width of the building as shown on your drawing S.E.Mach.No.5/1927 and the necessary space outside the building and contiguous thereto for the dead-end structure and lighting arrester installation.

The Government of Madras will provide free unfurnished housing, water, sanitation and electric li tin for the Licensee's operating establishment resident at Metur for the duration of the period of supply and, if possible, during the construction period. Ordinary unskilled labour will also be made available.

IX. As already mentioned, I would request you to let me have the decision of the Madras Government at the very

earliest date possible.

I have the honor to be,

Sir,

Your most obedient servant,

SGF-PRN.

Chief Electrical Engineer

POSTS TELEGRAPHS. No.

211

1615 D 173

O K MADRAS F 13 STATE ~~ENG ADDS~~ 182

DIWAN OF MYSORE BANGALORE.

G FORBES CHIEF ELECTRICAL ENGINEER OF

MYSORE BANGALORE

METUR PROJECT

SUPPLY OF ELECTRIC CURRENT STOP

MADRAS GOVERNMENT WILLING TO ACCEPT

OFFER OF MYSORE CHIEF ELECTRICAL ENGINEER

TO SUPPLY CURRENT FROM

SIVASAMUDRAM AND KANKANAHALLI ON TERMS

DETAILED IN HIS LETTER CLAUSE

IIII DATED SIXTH DECEMBER SUBJECT

TO FOLLOWING REMARKS STOP FIRSTLY

This form must accompany any enquiry respecting this telegram.

MGIPAh.—4-9-26.

POSTS TELEGRAPHS. No.

(2)

AS MYSORE GOVERNMENT IS TO

BE TREATED AS LICENSEE UNDER

INDIAN ELECTRICITY ACT SO FAR

AS WORKS IN MADRAS TERRITORY

ARE CONCERNED MADRAS GOVERNMENT CANNOT

DIVEST THEMSELVES OF THEIR POWERS

AND RESPONSIBILITIES UNDER THE ACT

BUT THEY DO NOT ANTICIPATE

DIFFICULTIES ON ITS APPLICATION STOP

SECONDLY MADRAS GOVERNMENT SUGGEST PROVISION

FOR ARBITRATION TO SETTLE QUESTIONS

ARISING IN EVENT OF MAJOR

XXX INTERRUPTIONS AS PROPOSED BY THEIR PROJECT

ENGINEERS STOP THIRDLY MADRAS GOVERNMENT

CANNOT GUARANTEE SUPPLY OF UNSKILLED

This form must accompany any enquiry respecting this telegram.

MGIPAh.—4-9-26.

POSTS TELEGRAPHS. No.

3

LABOUR BUT WILL BE READY TO

RENDER IT SO FAR

AS AVAILABLE STOP MADRAS GOVERNMENT

PROPOSE TO AUTHORISE ENGINEER IN

CHIEF METUR AND THEIR ELECTRICAL

INSPECTOR TO SETTLE DETAILS WITH

MYSORE CHIEF ELECTRICAL ENGINEER AND

DRAW UP AGREEMENT FOR APPROVAL

OF THE TWO GOVERNMENTS

MADRAS WORKS

Executive Engr
Metur
C.S.

CS 498 19/25

This form must accompany any enquiry respecting this telegram.

MGIPAh.—4-9-26.

Submitted to His Highness.

In continuation of my submission note dated the 19th November 1927 regarding the supply of Electric power to the Madras Government for the Metur Project, copy of letter addressed to the Executive Engineer, Cauvery Metur Project, by the Chief Electrical Engineer specifying in detail the conditions under which power is proposed to be given is submitted for His Highness's gracious perusal. The draft has been approved by me.

If the Madras Government agree to the conditions specified, further action will be taken.

Mirza M. Ismail

Dewan.

Bangalore.
14th December 1927.

Record of Cases submitted for the Orders of His Highness the Maharaja.

Subject.

Supply of Electric power to the Madras Government for the Metur Project.

378
Returned with Do letter No. dated 21-12-27.

Order.

Final Note by the Third Member of Council.

Subject :— SUPPLY OF ELECTRIC POWER TO THE MADRAS GOVERNMENT FOR THE METTUR RESERVOIR WORKS.

In connection with the Mettur Project on the Cauvery in the Madras Presidency, certain conversations have been carried on with the Madras authorities regarding the supply of Electric Power during the period of construction of the works.

As desired by the Dewan, the question was discussed by the Second Member of Council and myself with Mr. Forbes. The results of this discussion are embodied in the Draft reply proposed to be sent to Mr. Mullings, Chief Engineer of the Metur Project.

The rates at which power is proposed to be supplied are favourable, as we can expect a reasonable return on the capital cost incurred by us, including recoupment of the capital within five years.

The proposed draft letter may graciously be approved.

C S Balasundaramayer

MEMBER OF COUNCIL.

Bangalore,
19th November 1927.

Submitted to His Highness.

I submit herewith a Final Note by the THIRD Member of Council on the subject of supply of Electric Power to the Madras Government for the Mettur Reservoir Works for His Highness' gracious approval.

K Bhaudy

Dewan.(In-charge).

Bangalore,
19th November 1927.

Record of Cases submitted for the Order of His Highness the Maharaja.

Subject.

Supply of electric power to the Madras Government for the Mettur Reservoir Works.

323

Order.

~~KRW~~

24/11/27

C Secy

28/11/27

Recd 28/11/27. Forwarded to Secy, Ee dept- for favour of necessary & return

28/11

D.O. C.187.

To the Secy. Pl. Dept
with compliments

PRIVATE SECRETARY TO THE COUNCIL MYSORE
21 JAN. 1928
No. 6966

Park House, Mysore.
December 17th, 1927

DEWAN'S OFFICE
Received on
31. DEC. 1927
4150

My dear Mirza,

Your d.o.letter No.H.215 of the 14th instant reached me with only an incomplete file, but I submitted it as it w to His Highness the Maharaja who expressed a general agreement to your proposals.

Forbes has since been here and has, at my request, produced his copies of the correspondence with Hemshaw as well as of the Indian Electricity Act and rules, and I am greatly afraid (and he agrees) that you will not be on safe ground in accepting the Madras Government's terms without some further proviso in regard to the application of the rules having the force of law.

The difficulties arising in relation to these rules may be put into two classes - those arising out of the wording of the rules themselves, and those likely to arise out of their interpretation by officers not familiar with the working of high tension transmission lines.

You propose to meet difficulties of the latter class by asking Madras to appoint your Chief Electrical Engineer an Inspector under the Act so far as this undertaking is concerned. If they accept, that will suffice, but it will not cover difficulties of the former class.

It will be perhaps as well to state these in terms of the rules.

Rule 51 requires every conductor, and rule 57 requires all high pressure apparatus other than an aerial line, unless only accessible to an authorised person, to be completely enclosed in a mechanical strong metal-casing or metalling covering. Forbes proposes to have them high in the air, but uncovered, and says that the cost of casings would be prohibitive.

Rule 61 requires a factor of safety for wooden and ferro-concrete supports of at least four, and for conductors of

at least three. Forbes says that these are unnecessarily high because the wires would be brought down by other things falling across them long before the posts were blown down by wind pressure alone, and prohibitively expensive.

Rule 62 provides that no conductor of an aerial line erected in, along or across any street shall be at a less height from the ground than 20 feet. Forbes has taken 20 feet as his normal height, but says that he cannot guarantee that the lines will not be lower than ~~these~~ this where there are irregularities in the ground.

Rule 63 provides that every aerial line erected in, over, along or across any street shall be protected with a device approved by an Electric Inspector for rendering such line electrically harmless in case it breaks. Forbes does not consider that this is necessary in the case of lines crossing roads in a sparsely populated area such as that in question.

Rule 66 requires that the licensee or owner shall make arrangements so as to prevent any person climbing up any of the supports of high pressure lines without the aid of a ladder or special appliance. Actually in Mysore the practice is to climb up without such an aid, and it would be prohibitively expensive to provide every post with something to prevent people climbing up it.

Now as regards the correspondence in relation to these matters, Hanshaw's account of the discussions with Forbes runs with regard to compliance with the Indian Electricity Act, in the Madras Presidency, "you wish to add 'except with regard to overhead lines, which shall, however, be designed upon approved lines and shall comply with the minimum height required by the rules under the Indian Electricity Act.'" He added "as a result of my inspection of your transmission lines and in view of your large experience in such matters, I am prepared to recommend acceptance of this addition.'" ~~Even as stated~~, Forbes, however, was not prepared to accept the addition as stated, and proposed that the wording should be 'the overhead transmission line will be designed and constructed

in accordance with standard practice and shall be, what I consider, safe and sound construction.' On that the Madras Government say " as Mysore Government is to be treated as licensee under the Indian Electricity Act so far as works in Madras Territory are concerned Madras Government cannot divest themselves of their powers and responsibilities under the Act, but they do not anticipate difficulties on its application."

You will see from the quotations above that at least four of the rules having the force of law under the Act have got to be suspended from their operation, or that the result of the contract is liable to be converted from a profit to a dead loss.

It seems to me (and Forbes, to whom I have shown this letter, agrees) that there are only two ways out of the difficulty either (1) that the Madras Government must declare ~~either~~ that the Act or that the ~~general~~ rules framed under it do not apply to the undertaking in question, and must agree to frame rules that are in keeping with the terms of the estimate, and to appoint Forbes as the interpreter of them, or (2) the whole basis of the negotiations must be changed and Madras must undertake to take over the power at the frontier and to make the transmission line at least nominally their own. In other words, Mysore would have to be converted from ~~an agency to~~ a licensee into a contractor, who might if need be contract to take back the used materials at the end of a period The whole point of this suggestion is to ~~me~~ put the burden of complying with their rules on their own pockets. In other words they should agree to a contract for the transmission line on the basis of Forbes's estimate with a provision that any changes which ~~were~~ are required in order to make the line comply with their rules or requirements should be provided at their cost.

As they have shown themselves very willing to meet us so far, I hope that the difficulty to which I have drawn attention has only to be brought to their notice to be met, but I

D.O. No 125
with one file

THE PALACE,

MYSORE.

December 21st, 1927.

My dear Mirza,

In continuation of my letter No. 197 of the 18th instant, I return herewith the Government file relating to the question of the supply of electric power to the Madras Government for the Metur Project.

Yours sincerely,

D. O. No. 1119

S. G. FORBES, E. E., B. SC., (E. & M. E.), M. A. I. E. E.,
CHIEF ELECTRICAL ENGINEER.

OFFICE OF THE CHIEF ELECTRICAL ENGINEER
TO THE GOVT. OF MYSORE,
Bangalore (S. India.)

22nd Decr: 1927.

Dear Mr.Balasundram Iyer,

Power supply to Metur Project.

I am sending you herewith a copy of my telegram dated the 21st instant and confirming letter No. 28043 off date to the Secretary to the Madras Government, Public Works and Labour Department, Madras.

Yours sincerely,

S.G.Forbes

SGF.PRN.

To
C.S.Balasundram Iyer,Esq.,B.A.,
Member of Council,
Bangalore.

IN REPLY REFER TO

No..... Enclos.

Telegraphic Address:
"GOMED"

Codes used
BENTLEY'S LIEBER'S
A. B. C. 6TH EDITION
BUSINESS TELEGRAPH CODE.

GOVERNMENT OF MYSORE

ELECTRICAL DEPARTMENT

—o—

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,

Bangalore, 21st Dec. 192 7

(MYSORE, INDIA.)

Copy of telegram dated 21st Dec. 1927, from the Chief Electrical Engineer, Govt. of Mysore, Bangalore, to the Secretary to the Government of Madras, Public Works and Labour Department, Madras.

"Metur Project, your telegram 13th instant to Dewan, reference application Indian Electricity Act, I would like to discuss this with you further, please telegraph a convenient date"

RP-VJN.

Chief Electrical Engineer.

IN REPLY REFER TO
No. 28043
ENCLO. one.

Telegraphic Address:
"GOMED"

Codes Used
BENTLEY'S LIEBER'S
A. B. C. 6TH EDITION
BUSINESS TELEGRAPH CODE.

GOVERNMENT OF MYSORE

ELECTRICAL DEPARTMENT

—o—

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,

Bangalore, 21st Decr. 1927.
(MYSORE, INDIA.)

The Secretary to the Madras Government,
Public Works and Labour Department,
Madras.

Sir,

Power supply to Metur Project.

With reference to the copy of your No.20119,D/27-2, dated 13th December 1927 to the Dewan of Mysore, Bangalore, I have the honour to confirm having telegraphed you to-day as per copy herewith attached.

I request you to fix a convenient date and place, so that I can discuss with you the application of the Indian Electricity Act to the works connected with the supply of power to the Metur Project.

A telegraphic reply may kindly be sent to me.

I have the honour to be,
Sir,
Your most obedient servant,

RP-VJN.

Chief Electrical Engineer.

D. O. No. 1690/one.

OFFICE OF THE CHIEF ELECTRICAL ENGINEER
TO THE GOVT. OF MYSORE.

Bangalore 22nd Dec: 1927.
(S. India.)

DEWAN'S OFFICE.
Received on
23. DEC. 1927
Reg. No. 4042

CP 2625.

Dear Mr. Balasundram Iyer,

Power Supply to Metur Project.

In continuation of my D.O.No.Cl.1119 dated the 22nd instan I am sending you herewith a copy of the telegram which I received in reply to the one I sent yesterday. I would like very much to have your instructions as I think this question ought to be settled without waiting until the return of Mr. Evans on the 3rd January 1928.

After all Mr. Evans is only the Secretary and cannot make any decision, and I think it would be very advisable to telegraph Sir C.P. Ramaswamy Iyer, who, I believe, is in charge of the Metur Project.

A line in reply will be greatly appreciated.

Yours sincerely,

S. G. Forbes

C. S. Balasundram Iyer, Esq., B.A.,
Third Member of Council,
BANGALORE.

SGF-CSC.

I have asked him to wire to Sir CPR Iyer.
CSB 23/12

Ch-Secy.
CSB 23/12

Sub to perusal
Dewan) 23/12

Sir B.

24-12-27

27/12

IN REPLY REFER TO

No..... *Enclos.*

Telegraphic Address:
"GOMED"

Codes used
BENTLEY'S LIEBER'S
A. B. C. 6TH EDITION
BUSINESS TELEGRAPH CODE.

GOVERNMENT OF MYSORE

ELECTRICAL DEPARTMENT

—o—

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,

Bangalore..... *.....192*

(MYSORE, INDIA.)

Copy of cablegram dated 22nd Instant
from the Assistant Secretary Madras Works,
to the Chief Electrical Engineer, Bangalore.

"Your telegram 21st Mr. Evans
away from Madras returns third
January"

---(0)---

"Copy"

Sept.

A. K. Chief Electrical Engineer.

D. O. No. 1121 ... E/ors2

ELECTRICAL DEPARTMENT GOVT. OF MYSORE

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,
TO THE GOVT. OF MYSORE.

Bangalore 23rd Dec. 192 7

Dear Mr.Madhava Rao,

I am sending you herewith copy of letter, which I have to-day written to Mr.Mullings, Chief Engineer, Metur Project, and will let you know his reply as soon as I hear from him.

Yours sincerely,

SGF-PRN.

To
N.Madhava Rao,Esq., B.A.,
Chief Secretary to Govt.,
Bangalore.

Submitted for perusal
Hon'ble Member 23/12

D. O. No. 1120

OFFICE OF THE CHIEF ELECTRICAL ENGINEER
TO THE GOVT. OF MYSORE.

Bangalore 22nd Dec., 1927.
(S. India.)

Dear Mr.Mullings,

Power Supply to Metur Project.

I would refer you to that portion of the Madras Government's telegram dated the 13th December 1927 to the Dewan of Mysore which refers to the Indian Electricity Act and would inform you that the intention of the Madras Government is not clear, and as this is a factor of major importance I consider it necessary for me to meet you and arrive at a definite decision as to the extent and manner in which the Indian Electricity Act will be applied to the works which we will execute in the Madras Territory.

I telegraphed Mr.Evans the other day asking him to fix a date and place for me to meet him and discuss the question, but received a reply from the Asst: Secretary saying that Mr.Evans was out of station and would not return until the 3rd of January 1928.

As time is important, I am writing to you and hope that you will fix a date for me to come down to Metur and discuss the question with you and arrive at a definite agreement on this point and to discuss and settle all other details mentioned in the last part of the telegram dated the 13th instant from the Madras Government. If necessary, I could go with you to Madras or wherever necessary to see the Minister for the Metur Project, or the Secretary.

I would be glad if you would fix on some date after the 28th instant for me to meet you.

In the meantime I am proceeding, as rapidly as possible with all preliminaries for the work as I anticipate

GOVERNMENT OF MADRAS.

Public Works and Labour Department,
Fort Saint George,

28th January 1928.

D.O.No.20119 D/27-8.

My dear Mr. Mirza Ismail,

I am to thank you for your D.O. 2942 dated 26th January to Sir C.P. Ramaswami Aiyar about the question of supply of electric power to Metur.

2. As regards the first point, I am to say that the Government will agree to the rates per unit provided in paragraph 11 (a) of the draft being proportionately increased on account of any reduction of the period of supply. As I explained to Mr. Forbes the reduction of the period had to be made at the last moment because Mr. Mullings pointed out that our programme contemplates completion of construction in June 1933; and we could therefore not honestly contract to take full supply beyond that date. The exact alterations necessary have been referred to Mr. Mullings.

3. As to the question of income-tax, I am to say that the Government will agree to reimburse you for what you may have to pay on your earnings under the agreement. This point was not mentioned in the letter to the Resident because I doubted then whether you wished to press for it.

4. I am to express the hope that in view of the above assurances you will do your best to push the matter through.

Yours sincerely,

Sd/- F.B. Evans.

To

Mirza M. Ismail Esq.,

Dewan of Mysore, Bangalore.

.....

" C o p y "

REPLY

(To be written on this margin.)

Office of the Dewan of Mysore

NOTE

Camp Mysore, *Dated*....22nd....January.....1928:

Secretary, K.R.S.Works:

May I know if any further communicati
has been received from the Madras Governme
(through the Residency) about supply of el
tric power to Mettur; if so, kindly put i
soon, as it is an urgent matter.

Dewan.

No C 729/E25

Submitted with
the Residency letter
received a day or two ago.
K. V. Seshadri
2-1-28

D. NO...../EDS.

Subject:- Memo No. 515/21-1928 dated the 18th January 1928 from the Residency forwarding a copy of letter No. 2011c/D/27-5 dated the 16th idem from the Government of Madras, Public Works and Labour Departments in re.- supply of electric energy from Sivasamudram to Metur.

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Submitted to the Dewan of Mysore, for information.

2. The views of the Chief Electrical Engineer on the proposals of the Madras Government have been called for and the same will be submitted to Government on receipt.

K. A. Seshacha

Secretary to Government,
Electrical Department.

Camp - Mysore,
January 28.)

[R.O. 106.]

All communications should be addressed to the Secretary to the Resident in Mysore, Bangalore, by designation and not by name.

OFFICE OF THE RESIDENT IN MYSORE,

Bangalore, 18th January 1928

No. 675
21-1928 Enclos. 2

A copy of the marginally* noted letter, with enclosure, is forwarded with compliments, to the Chief Secretary to the Government of H. H. the Maharaja of Mysore, Public Works Department, with the request that their views on the proposals of the Government of Madras may be communicated to this office for the information of the Government of Madras.

*No. 20119 D/27-5, dated the 16th January 1928, from the Government of Madras, Public Works and Labour Department.

Major.
Secretary to the Resident.

531—15-9-1927—5,000—RPB.

Letter No. 20119 D/27-5, dated the 16th January 1928, from the Secretary to the Government of Madras, Public Works and Labour Department, to the Hon'ble the Resident in Mysore.

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Negotiations have been in progress between the Chief Electrical Engineer, Mysore, and the Engineer-in-Chief, Metur, regarding the supply of electric energy from Sivasamudram to Metur for works in connection with the Metur dam and I am now to request you to be so good as to inform the Government of Mysore that the Government of Madras are glad to accept the offer of Mysore on the terms of the draft agreement annexed to this letter, which have been settled in consultation between the engineers of the respective Governments, and which they trust will be acceptable to the Mysore Government.

2. It is proposed to give the Mysore Government powers under section 28 and 51 of the Indian Electricity Act to operate so far as regards works in British territory. It has been urged on behalf of Mysore that the interpretation of the Act should rest jointly with the Madras engineers and the Mysore Chief Electrical Engineer and particularly that the Madras Government should be content with the overhead transmission lines being designed and constructed in accordance with standard practice in Mysore. The Government of Madras are unable to divest themselves of their responsibilities under the Indian Electricity Act and do not think that it would be proper to appoint the Mysore Chief Electrical Engineer to be an Inspector under the Act for the prupose of this project, as he will be the representative of the licensees. But they recognise that the circumstances of the case are special as the Mysore Government will be the suppliers and the Madras Government the consumers; and it follows that it is unnecessary to apply many of the provisions of the Act which are designed primarily to protect the interests of private consumers supplied by a commercial concern. For instance, it would obviously be unnecessary for the Madras Government to concern themselves with questions relating to the audit of the Mysore Government's accounts. As regards the transmission lines they are ready to accept Mysore standard

practice

practice and for this purpose to relax under rule 103 of the rules under the Act the provisions of rule 61 and such other of rules 36 and 102 as may be necessary. They will also instruct their Electrical Inspector that whenever he is disposed to differ from the Mysore Chief Electrical Engineer as to the application or interpretation of any of the provisions of the Act or the rules under it in any material respect he should at once report the matter to them before issuing any orders. The Government of Madras feel sure that these arrangements will fully meet the desires of the Mysore Government.

---:0:---

"C O P Y"

CAPTAIN.

REGISTRAR, RESIDENT'S OFFICE.

SVR

Draft Agreement.

1. Agreement. Agreement made this day between the Government of Mysore of the one part and the Government of Madras of the other part Whereby it is agreed as follows:-

2. Conditions of supply. The Government of Mysore shall supply at the receiving station situated in the Metur Dam Works electrical energy in the form of a 3 phase alternating current at a pressure of three thousand three hundred volts across phases and a frequency of fifty periods per second and the supply shall be available continuously throughout the whole period of the agreement. The power will be transmitted to Metur over duplicate transmission lines and there stepped down by means of three 2200 K.V.A. three-phase transformers with a fourth transformer as a spare. The power will be converted from 25 cycles to 3300 volts 50 cycles by means of three motor-generator sets each of not less than 1500 K.V.A. output.

3. Receiving station at Metur and its equipment. The Government of Madras shall permit the Government of Mysore to occupy free of charge three 20 feet bays for the full width of the building in the existing Power House at Metur or such other accommodation in and adjacent to the Power House as may be found necessary and agreed upon between the parties together with necessary space outside of the building for the dead-end structure and lightning arrester installation.

4. Responsibility for Mysore Government's apparatus at Metur. The Government of Madras shall be responsible to the Government of Mysore for the safe custody of all the Mysore Government's apparatus at Metur and in the event of loss by theft or damage by fire

(except

(except fire originating in the property of the Government of Mysore) shall replace or repair the apparatus lost or damaged.

5. Accommodation for operating establishment at Metur. The Government of Madras shall provide at Metur and to the standard provided for Madras Government servants of similar status free unfurnished housing, water, sanitation and electric lighting for the Mysore Government operating establishment for the duration of supply and if possible during the construction period.

6. Maximum Demand. The normal demand shall not exceed 3500 K.W. at or above 0.8 power factor. Full power shall be available normally for 12 hours per day but after 24 hours telephonic notice full power shall be available for 24 hours per day. The telephone line necessary for this purpose shall be put up and maintained by the Mysore Government.

7. Commencement of supply. A partial supply of 750 K.W. shall be available by 9½ months from the date of preliminary acceptance of the agreement; full supply shall be available by 4 months from the commencement of the above partial supply.

8. Transmission line. The factor of safety of all portions of the transmission line shall be at least two under all conditions, the maximum wind pressure being 10½lbs per sq.ft. with an addition of 10 per cent for every 1000 feet of elevation above sea level.

9. Meters. The energy supplied shall be measured by means of three similar three-phase meters which shall be supplied and maintained by the Mysore Government, the Madras Government shall pay the full cost of supplying and maintaining two of these meters; each three-phase meter shall be complete with a separate set of current and potential transformers. The meters shall be read monthly and

and the consumption shall be taken to be the average of the reading of the three meters, but in the event of one of the said meters varying more than 2.5 per cent from the average of the other two meters the mean between these two shall be taken, and if only one meter shall be considered accurate then the reading of that one shall be acted upon; and if all three meters are manifestly inaccurate then the charge for the period of time in question shall be a just charge having regard to the average of prior periods and the circumstances of the case.

10. Accuracy and Testing of Meters. Should any dispute arise between the parties to this Agreement as to the accuracy of the readings obtained under the preceding clause, either party may upon giving notice to the other have one or all the meters tested by the Professor of Electrical Technology of the Indian Institute of Science and if upon these tests being made the inaccuracy is found to be more than two and a half per cent the Mysore Government's account shall be adjusted as may be required. Should the inaccuracy prove to be less than two and a half per cent no adjustment shall be made. The expense of such testing shall be borne by the Mysore Government in the event of the account requiring adjustment but if no adjustment follows then the expenses shall be borne by the party at whose instance the test is made.

11. Tariff. The Government of Madras shall take the energy and the charges for the energy supplied shall be

according

according to the following sliding scale:-

Quantity of energy supplied in the month.		Rate for the whole quantity.
Up to 374,999 units	.. 0.75	of an anna per unit.
375,000 to 399,999 units	.. 0.725	"
400,000 to 424,999 "	.. 0.700	"
425,000 to 449,999 "	.. 0.675	"
450,000 to 474,999 "	.. 0.650	"
475,000 to 499,999 "	.. 0.625	"
500,000 to 524,999 "	.. 0.600	"
525,000 to 549,999 "	.. 0.575	"
550,000 and above	.. 0.55	"

(b) The rates in (a) above shall be day-light rates for 12 hours namely, 6 A.M. to 6 P.M. or any other period of 12 hours to be agreed upon from time to time to suit the Madras Goverrment's work at Metur and also the above rates shall apply for all night consumption except as provided for in the next following clause.

(c) For all power consumption after the period referred to in (b) above the ~~rate~~ rate per unit shall be 0.40 anna per unit for the power consumed during any period of not less than three hours in which the average load is not less than 750 K.W.

(d) When the heavy motor driven construction plant is erected and ready for service the Government of Madras shall notify the fact to the Government of Mysore and from that date the charges for energy shall be subject to a minimum charge of 300,000 units per mensem at .75 anna per unit; and for this purpose the period from when the full supply is available under clause 7 of this agreement to the date when the above mentioned notification is given shall be limited to 6 months.

e) When, owing to natural deceleration of construction, the normal power requirements

diminish

diminish the minimum charge specified in 11(d) above shall be reduced proportionately with the reduced power requirements subject to an absolute minimum charge for 100,000 units.

12. Monthly Accounts. The Mysore Government shall submit to the Madras Government a statement of account of the electrical consumption during each calendar month and the Madras Government shall pay the amount due within thirty days of the receipt of that account.

13. Liquidated damages for power supply stoppages. The liquidated damages for power supply stoppages shall be -

(a) Rs.1,000/- per hour or part of an hour after one hour during the working period of the construction plant.

(b) Rs.100/- per hour or part of an hour after one hour when the construction plant is not working. Provided, however, that no penalty is payable if the stoppage is due to causes beyond the Mysore Government's control such as War, riots, storms and floods.

14. Period of Agreement. This agreement shall continue up to June 30th, 1933 and for so long thereafter as power is required for the construction of the Metur Dam Works. The Madras Government shall give not less than three months notice of the expected date of completion of the construction.

15. Arbitration. Except where the Indian Electricity Act 1910 otherwise provides any question dispute or difference arising as to the meaning or due fulfilment by either of the parties of this Agreement or to any matter or thing arising under or out of the same in any manner or way shall be referred to the arbitration of an arbitrator to be named (failing

agreement)

agreement) by the Government of India on the application of either of the parties and every award of the arbitrator shall be binding on the party and this shall be deemed to be a reference to arbitration within the meaning of the Indian Arbitration Act 1899.

---:0:---

"C O P Y"

BJ

D. O. No. 2./.one.

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,
TO THE GOVT. OF MYSORE.

Camp Sivasamudram, Bangalore, 23rd Jan 1928

My dear Mr. Mirza,

I am sending you herewith a copy of my D.O.Camp No.1, dated the 23rd instant, to Mr. Evans, Secretary to Government, Public Works and Labour Department, Madras.

Yours truly,

SGF-DMJ.

To

Amin-ul-Mulk Mirza Mohamed Ismail,B.A.,
The Dewan of Mysore,
BANGALORE.

IN REPLY REFER TO
No. D.O. C.1.
ENCLO.

GOVERNMENT OF MYSORE

ELECTRICAL DEPARTMENT

OFFICE OF THE Chief Electrical Engineer,

Camp *Sivasamudram*, 23rd January 192 8.

My dear Evans,

I have your D.O.No.20119.D/27-5, dated the 18th January 1928, and in reply would say that I saw the Dewan yesterday, but he has not received the letter and draft agreement from the Residency.

By the change made in paragraph 14, you have reduced the time from 60 months to 50 months for full power consumption, and therefore, the rates per unit provided in paragraph 11 (a) will have to be proportionately increased. The rates per unit were based on full power consumption for 60 months and fixing the date of termination as 30th June 1933 leaves only 50 months after the 1st of November 1928, and I therefore, feel that the original para 14 should stand.

I do not understand why so very important a change as this has been suggested at such a late date, and I would be very glad if you would let me know by return post if we cannot stand by the original para which provides for 60 months of full power consumption.

I expect that by the time I reach Bangalore on Wednesday that the Dewan will have received the letter from the Resident, when I would like to be in a position to inform him that you agree to this.

Yours sincerely,

S.G.F.

SGF-DMJ.

To

Evans,Esqr.,
Secretary to Government,
Public Works & Labour Department,
Fort St.George, M A D R A S.

THE PALACE,

MYSORE.

24th January 1928.

My dear Mirza,

I return with many thanks the Residency letter on the subject of the Metur Electrical agreement.

I have not got copies of the Act or Rules beside me now, but so far as I can see the agreement, coupled with the letter of the Madras Government, ought to meet all our difficulties satisfactorily.

Yours sincerely,

C Todhunter

My dear Forbes,

This is for you personally)

About the eleventh hour alteration in the terms for Metur electric supply. I must take the responsibility; but I did not see what else to do. I got a note from Mullings after I had signed the letter to the Resident. The case as you know was urgent, and it seemed to me that we could not honestly undertake to take supply after June 1933 when Mullings said definitely that his programme was to finish construction in June 1933 and I thought that you would probably not object, as admittedly you are not out to make much out of this arrangement. I think that June 1933 must be put in as the limit date (subject to what Mullings may now say) - but I presume that we shall be ready to agree to higher rates on that account if you wish.

This is only my own view. I can't reply officially till I have got his further reply; and to-day C.P. is full up with politics.

Copy of
Mr Evans letter of C.S.S.
Date 24-1-28

Bangalore,

D.O. 2942

26th January 1928.

My dear Sir Ramaswamy Aiyar,

I have ~~just~~ received through the Residency a copy of the letter from the Government of Madras enclosing a draft agreement regarding the supply of electrical power to Metur. Before replying officially to that letter, I am anxious to settle one or two essential points with you informally in order to save time.

You may remember that it was distinctly understood between us when we came to an agreement in Madras that full power would be taken by you for a period of 60 months, certain. I find that in the draft agreement, para 14, this period has been reduced from 60 to 50 months. I need not say, that this reduction does make a difference to us, and can only be accepted on the condition that the rates per unit provided in para 11 (a) are proportionately increased.

Also, I should be grateful for an assurance from you that as agreed to between us, the Madras Government will reimburse us for any income-tax we may have to pay to the Government of India on our earnings from the power supplied to you.

Our formal reply to the letter from the Madras Government will of course be communicated through the Residency; but as our decision would be governed largely by a clear understanding of your final intentions, I would be greatly obliged by your letting me have a reply as early as you canveniently can, so that no time might be lost, and we could put the work in hand pending conclusions of the formal agreement.

Yours sincerely,

MV

P. W. D.

Krishnaraja Sagara Works and Electrical Secretariats.

File No. D 171 of 1927-28

Serial No.

File of papers in re. the Supply of Electric power to the Madras Govt. for the Metur Project.

Submitted to the Dewan of Mysore, in continuation of this Office No: EDS 729 dated the 22nd instant, forwarding the Residency letter re the Agreement for power Supply to Metur.

K. Q. Seshachar
Secretary to Govt.,
Electrical Dept.
24/1/28.

Camp Mysore
24.1.28.

NOTE—Contn. sheet.

WD 2032 GPB—1,000—11-4-27

D. O. No. 1791 / Encls-Six.

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,
TO THE GOVT. OF MYSORE.

Bangalore 9th Febry 1928

PP 87-27-1

Dear Mr. Madhava Rao,

Metur Power Supply.

I am sending you herewith copy of the letter which I have written to-day to the Secretary; Electrical Department. I think it will be best for you to draft a letter to the Hon'ble the British Resident in Mysore

Yours sincerely,

S. G. Forbes

SGF-PRN.

P.S.
The agreement sent herewith differs slightly from the Copy I left with you and Mr. Nagappa

To
N. Madhava Rao, Esq., B.A
Chief Secretary to Government,
Bangalore.

IN REPLY REFER TO
No. 29127
ENCLS.

Telegraphic Address:
"GOMED"

Codes Used
BENTLEY'S LIEBER'S
A. B. C. 6TH EDITION
BUSINESS TELEGRAPH CODE

GOVERNMENT OF MYSORE

ELECTRICAL DEPARTMENT

—o—

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,

Bangalore 9th February *192*

(MYSORE, INDIA.)

The Secretary to Government,
Electrical Department,
BANGALORE.

Sir,

METUR POWER SUPPLY.

I have your No.EDS.735 dated Camp, Mysore, 27th January 1928 and in reply thereto have the honor to send herewith a draft agreement to be entered into with the Madras Government for supply, at Metur, power for the construction of the Cauvery Metur Dam and other works. The agreement provides for the manner in which the power will be supplied, the rates per BOARD OF TRADE UNIT and the other necessary details in connection with the Transmission Line to Metur and the Step-down Station to be situated in the Power House to be provided by the Madras Government.

2. The attached draft agreement is along the same general lines as the draft agreement accompanying your above numbered letter and differs therefrom only as will be mentioned below.

3. Subsequent to fixing the rates per B.O.T.U. and other terms, the Madras Government have reduced the period of supply from 60 months of full power consumption to a definite time period terminating on the 30th June 1933. This definite date reduces the period of full power supply from 60 months to 50 months and, in unofficial conversations between the Dewan of Mysore and Sir C.P.R. [illegible] Iyer,

it has been agreed that the rates, originally fixed in unofficial correspondence and in the draft agreement submitted by Madras Government, be proportionately increased and therefore, the rates provided for in para 11(a) in the draft agreement sent herewith have been increased in the ratio of 60/50 months. I am sending you herewith a copy of my D.O.No.C.1 dated Camp, Sivasamudram, 22nd January 1928 to Mr.F.B.Evans and a copy of his D.O.No.20119D/27-6 dated the 24th January 1928, also a copy of my D.O.No.1749 dated the 28th January to him.

4. In the unofficial correspondence between the Dewan of Mysore and Sir C.P.Ramaswamy Aiyer, it was agreed that the Madras Government will reimburse Mysore Government for any Income-tax which the Mysore Government may have to pay to the Government of India on account of this power supply to Metur.

This point has not been taken care of in the draft agreement, as it should be taken care of in the covering letter to the Hon'ble the British Resident in Mysore in reply to his No.515-21-1928 dated the 18th January 1928.

5. I will comment only on the paragraphs of the draft agreement submitted by the Madras Government, as follows:-

Paragraph 2 - Conditions of supply.

The word "Period" has been changed to "Cycles". The description of the Transmission Line has been changed to read, "The power will be transmitted to Metur over a duplicate circuit transmission line" instead of "over duplicate transmission line".

Para 3 - Receiving Station at Metur and its equipment.

This para has been changed to provide for four 65 ft. bays.

Para 5 - Accomodation for Operating Establishment at Metur.

This paragraph has been changed to definitely provide for housing Mysore Government's establishment at Metur during the construction period as well as during the operating period.

A sub.clause has been added to this paragraph which provides ~~f~~ that no compensation or royalty in any shape or form shall be paid by the Mysore Government to the Madras Government.

Para 6 - Maximum Demand.

The average demand, as fixed during the negotiations, is 2040 K.W. approximately and this has been provided for in this paragraph. Provision is also made for normal night power requirements.

Para 7 - Commencement of supply.

The date of preliminary acceptance is the 30th January 1928, the date on which the Dewan of Mysore telegraphed Mr.F.B.Evans acknowledging his D.O.letter No.80110D-27-8 dated the 28th January 1928 and informing him that he (The Dewan) was issuing orders to start work as early as possible, pending conclusion of the formal agreement. Therefore, this paragraph has been amended to provide for the dates on which a partial supply of power shall be ready.

I have included in this paragraph a provision that no penalty shall be incurred if the supply is not ready on this date by reason of causes beyond the control of the Mysore Government.

Para 8 - Transmission Line.

I have added at the end of this paragraph the words " and shall be according to Mysore Government's standard practice".

Para - 11. Tariff.

The rates in para 11(a) have been increased in the ratio of 60/50 months.

A sentence has been added at the end of para 11(c) to read, "the consumption under this clause shall not be used to determine the rate at which the power supplied under (b) above will be billed.

In para 11(d) the rate per unit for the minimum consumption has been changed from 0.75 of an anna per unit to 0.900 of an anna per unit corresponding with the rate in para 11 (a).

I have added to para II (e) the words, "but no reduction in the minimum charge will take place before the 31st March 1933.

Para 12. - Monthly Accounts.

I have provided in this para the place where the Madras Government should make monthly payments.

Para 13 - Liquidated damages for power supply stoppages.

I have added at the end of Clause 13(b) the words, "and fire".

Para 16 - Arbitration.

I have omitted from the beginning of this paragraph the words, "except where the Indian Electricity Act 1910 otherwise provides".

6. I am sending herewith a copy of Mr.Evans' personal letter to me dated the 24th January 1928, which should be treated as CONFIDENTIAL, inasmuch as it was addressed to me confidentially, but I consider it advisable to have a copy thereof in your records.

7. In accordance with instructions from the Deman

in his D.O.No.2987 dated the 30th January 1958, I have already started the construction work and have placed orders for most of the Transmission Line materials. The Transmission Line will require the longest time to construct and I have taken the necessary action for its completion well in advance of the due date of first supply of power to Metur.

I have the honor to be,
Sir,
Your most obedient servant,

SGF-PRN.

Chief Electrical Engineer.

D.O.Letter No.20119 D/27-6 dated the 24th January 1928 from F.B.Evans,Esq., to S.G.Forbes,Esq., Chief Electrical Engineer.

My dear Forbes,

Yours dated the 23rd about the reduction of the period of full consumption from 60 months to 50 in the Hetur supply agreement. I am afraid I cannot reply without consulting Mullings which I am doing at once.

Yours sincerely,
(Sd) F.B.Evans

" C O P Y "

Bangalore
9-2-1928
PRN.

Chief Electrical Engineer

D.O.Letter No.1749 dated the 28th January 1928 from S.G.Forbes,Esq., Chief Electrical Engineer, to F.B.Evans,Esq., Secretary, P.W. & Labour Department, Government of Madras, Madras.

My dear Evans,

I have your D.O.No.20119-27-6 dated the 24th instant and in reply thereto would inform you that the Dewan of Mysore has received the letter with the draft agreement from the Residency in connection with the power supply to Metur and has written direct to Sir C.P. Ramaswamy Iyer with regards to the reduction in the time for full power supply from 60 to 50 months and I feel that they will be able to settle the question satisfactorily.

I am proceeding actively with the construction work on the Metur Transmission Line and am sending out gangs of men next week for surveying the route from Sivasamudram to Metur and clearing the jungle.

Yours sincerely,

(Sd) S.G.Forbes

" COPY "

Chief Electrical Engineer

Bangalore
9-2-1928
PRN.

CONFIDENTIAL.

Letter (Personal) dated the 24th January 1928 from F.B.Evans,Esq., to S.G.Forbes, Esq., Bangalore.

My dear Forbes,

(This is for you personally)

About the eleventh hour alteration in the terms for Metur Electric supply. I must take the responsibility but I did not see what else to do.

I got a note from Mullings after I had signed the letter to the Resident. The case as you know was urgent and it seemed to me that we could not honestly undertake to take supply after June 1933 when Mullings said definitely that his programme was to finish construction in June 1933 and I thought that you would personally not object, as admittedly you are not out to make much out of this arrangement. I think that June 1933 must be put in as the limit date (subject to what Mullings may now say) but I presume that we shall be ready to agree to higher rates on that account if you wish.

This is only my own view. I cannot reply officially till I have got his further reply and to-day C.P. is full up with politics.

Yours sincerely,

(Sd) F.B.Evans

" COPY "

Bangalore
9-2-1928.
PRN.

Chief Electrical Engineer

D.O.Letter No.C1. dated Camp, Sivasamudram, 23rd January 1928, from Mr.S.G.Forbes, Chief Electrical Engineer to the Government of Mysore, to F.B.Evans,Esq., Secretary to Govt., P.W. & Labour Department, Fort St: George, Madras.

My dear Evans,

I have your D.O.No.20119-D/27-5 dated the 18th January 1928, and in reply would say that I saw the Dewan yesterday, but he has not received the letter and draft agreement from the Residency.

By the change made in paragraph 14, you have reduced the time from 60 months to 50 months for full power consumption and, therefore, the rates per unit provided in paragraph 11(a) will have to be proportionately increased. The rates per unit were based on full power consumption for 60 months and fixing the date of termination as 30th June 1933 leaves only 50 months after the 1st of November 1928 and I therefore feel that the original para 14 should stand.

I do not understand why so very important a change as this has been suggested at such a late date and I would be very glad if you would let me know by return post if we cannot stand by the original para which rovides for 60 months of full power consumption.

I expect that by the time I reach Bangalore on Wednesday that the Dewan will have received the letter from the Resident, when I would like to be in a position to inform him that you agree to this.

Yours sincerely,
Sd. S.G.Forbes

" C O P Y "

Bangalore
9-2-1928
PRN.

Chief Electrical Engineer

No. E&S. 556 dated 10th February 1928

Strictly Confidential

Letter No 29127 dated 9th Feb 1928 from the Chief Electrical Engr with enclosure (draft agreement for power supply to Meerut) is forwarded with Compts to the Chief Secretary for favour of disposal as the reference on this Council. are being dealt with in his Sect. The draft proposed by the Chief Elec. Engr may be adopted. The matter relating to Income tax, has, as stated by the C.E.E. to be separately dealt with

V.C. 2. Seshadri
10. 2. 1928

IN REPLY REFER TO
No. 29127
ENCLS. one draft agreement.
four copies of letters.

GOVERNMENT OF MYSORE

ELECTRICAL DEPARTMENT

OFFICE OF THE CHIEF ELECTRICAL ENGINEER,

Bangalore 9th February 192 8

(MYSORE, INDIA.)

Telegraphic Address:
"GOMED"

Codes Used
BENTLEY'S LIEBER'S
A. B. C. 6TH EDITION
BUSINESS TELEGRAPH CODE

375
10/2/28

The Secretary to Government,
Electrical Department,
BANGALORE.

Sir,

METUR POWER SUPPLY.

Vdt 11
10.2.1928

I have your No.EDS.735 dated Camp, Mysore, 22nd January 1928 and in reply thereto have the honor to send herewith a draft agreement to be entered into with the Madras Government for supply, at Metur, power for the construction of the Cauvery Metur Dam and other works. This agreement provides for the manner in which the power will be supplied, the rates per BOARD OF TRADE UNIT and the other necessary details in connection with the Transmission Line to Metur and the Step-down Station to be situated in the Power House to be provided by the Madras Government.

2. The attached draft agreement is along the same general lines as the draft agreement accompanying your above numbered letter and differs therefrom only as will be mentioned below.

3. Subsequent to fixing the rates per B.O.T.U. and other terms, the Madras Government have reduced the period of supply from 60 months of full power consumption to a definite time period terminating on the 30th June 1933. This definite date reduces the period of full power supply from 60 months to 50 months and, in unofficial correspondence, between the Dewanof Mysore and Sir C.P.Ramaswamy Aiyer

it has been agreed that the rates,originally fixed in unofficial correspondence and in the draft agreement submitted by Madras Government, be proportionately increased and therefore, the rates provided for in para 11(a) in the draft agreement sent herewith have been increased in the ratio of 60/50 months. I am sending you herewith a copy of my D.O.No.C.1 dated Camp, Sivasamudram, 23rd January 1928 to Mr.F.B.Evans and a copy of his D.O.No.20119D/27-6 dated the 24th January 1928, also a copy of my D.O.No.1749 dated the 28th January to him.

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5. I will comment only on the paragraphs of the draft agreement submitted by the Madras Government, as follows:-

Paragraph 2 - Conditions of supply.

The word "Period" has been changed to "Cycles". The description of the Transmission Line has been changed to read, "The power will be transmitted to Metur over a duplicate circuit transmission line" instead of "over duplicate transmission line".

Para 3 - Receiving Station at Metur and its equipment.

This para has been changed to provide for four 24 ft. bays.

Para 5 - Accomodation for Operating Establishment at Metur.

This paragraph has been changed to definitely provide for housing Mysore Government's establishment at Metur during the construction period as well as during the operating period.

A sub.clause has been added to this paragraph which provides ~~for~~ that no compensation or royalty in any shape or form shall be paid by the Mysore Government to the Madras Government.

Para 6 - Maximum Demand.

The average demand, as fixed during the negotiations, is 2040 K.W. approximately and this has been provided for in this paragraph. Provision is also made for normal night power requirements.

Para 7 - Commencement of supply.

The date of preliminary acceptance is the 30th January 1928, the date on which the Dewan of Mysore telegraphed Mr.F.B.Evans acknowledging his D.O.letter No.20119D-27-8 dated the 28th January 1928 and informing him that he (The Dewan) was issuing orders to start work as early as possible, pending conclusion of the formal agreement. Therefore, this paragraph has been amended to provide for the dates on which a partial supply of power shall be ready.

I have included in this pragraph a provision that no penalty shall be incurred if the supply is not ready on this date by reason of causes beyond the control of the Mysore Government.

Para 8 - Transmission Line.

I have added at the end of this paragraph the words " and shall be according to Mysore Government's standard practice".

Para - 11. Tariff.

The rates in para 11(a) have been increased in the ratio of 60/50 months.

A sentence has been added at the end of para 11(c) to read, "the consumption under this clause shall not be used to determine the rate at which the power supplied under (b) above will be billed.

In para 11(d) the rate per unit for the minimum consumption has been changed from 0.75 of an anna per unit to 0.900 of an anna per unit corresponding with the rate in para 11 (a).

I have added to para 11 (e) the words, "but no reduction in the minimum charge will take place before the 31st March 1933.

Para 12. - Monthly Accounts.

I have provided in this para the place where the Madras Government should make monthly payments.

Para 13 - Liquidated damages for power supply stoppages.

I have added at the end of Clause 13(b) the words, "and fire".

Para 16 - Arbitration.

I have omitted from the beginning of this paragraph the words, "except where the Indian Electricity Act 1910 otherwise provides".

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7. In accordance with instructions from the Dewan

in his D.O.No.2987 dated the 30th January 1928, I have already started the construction work and have placed orders for most of the Transmission Line Materials. The Transmission Line will require the longest time to construct and I have taken the necessary action for its completion well in advance of the due date of first supply of power to Metur.

I have the honor to be,
Sir,
Your most obedient servant,

S.G.F.

SGF-PRN.

Chief Electrical Engineer.

10/28

POWER SUPPLY TO METUR

DRAFT AGREEMENT.

-:0:-

9/7/28

DRAFT AGREEMENT

1. Agreement. Agreement made this day of 1928, between the Government of Mysore of the one part and the Government of Madras of the other part Whereby it is agreeed as follows:-

2. Conditions of supply. The Government of Mysore shall supply at the receiving Station situated in the Metur Dam Works electrical energy in the form of a 3 phase alternating current at a pressure of (3300) three thousand three hundred volts across phases and a frequency of fifty cycles per second and the supply shall be available continuously throughout the whole period of the agreement. The power will be transmitted to Metur over a duplicate circuit transmission line and there stepped down by means of three 2200 K.V.A. three-phase transformer with a fourth transformer as a spare. The power will be converted from 25 cycles to 50 cycles by means of 3 motor generator sets each of not less than 1500 K.V.A. output.

3. Receiving Station at Metur and its equipment. The Government of Madras shall permit the Government of Mysore to occupy free of charge four 20 feet bays for the full width of tne building in the existing Power House at Metur or such other accommodation in and adjacent to the Power House as may be found necessary and agreed upon between the parties together with necessary space outside of the building for the dead-end structure and lightning arrester installation.

4. Responsibility for Mysore Government's apparatus at Metur.

The Government of Madras shall be responsible to the Government of Mysore for the safe custody of all the Mysore Government's apparatus at Metur and in the event of loss by theft or damage by fire (except fire originating in the property of the Government of Mysore) shall replace or repair the apparatus lost or damaged.

5. Accommodation for operating establishment at Metur.

The Government of Madras shall provide at Metur and to the standard provided for Madras Government servants of similar status free unfurnished housing, water, sanitation and electric lighting for the Mysore Government operating establishment for the duration of supply and during the construction period.

5(a) Compensation or Royalty for works on Government land.

The Mysore Government is not to be charged by Madras Government compensation or royalty in any shape or form on account of their works on Government land within the Madras Territory.

6. Maximum demand.

The average demand of 2040 K.W. approximately at or above 0.75% power factor shall be available normally for 12 hours per day but after 12 hours telephone notice this power shall be available for 24 hours per day. The normal night power requirements will be available without notice. The telephone line necessary for this purpose shall be put up and maintained by the Mysore Government.

The normal peak load shall not exceed 3500 K.W. at or above 0.8 power factor.

7. Commencement of supply. A partial supply of 750 K.W. shall be available by November 14th 1928, i.e., 9½ months from the 30th January 1928, i.e., the date of preliminary acceptance of the agreement; full supply shall be available within 4 months from the commencement of the above partial supply. No penalty shall be incurred if the supply is not ready on these dates by reason of causes beyond the control of Mysore Government.

8. Transmission Line. The factor of safety of all portions of the transmission line shall be at least two under all conditions, the maximum wind pressure being 10 lbs. per square foot with an addition of 10 per cent for every 1000 feet of elevation above sea level and shall be according to Mysore Government standard practice.

9. Meters. The energy supplied shall be measured by means of three similar three-phase meters which shall be supplied and maintained by the Mysore Government, the Madras Government shall pay the full cost of supplying and maintaining two of these meters; each three phase meter shall be complete with a separate set of current and potential transformers. The meters shall be read monthly and the consumption shall be taken to be the average of the reading of the three meters but in the event of one of the said meters varying more than 2.5 per cent from the average of the other two meters the mean between these two shall be taken if only one meter shall be considered accurate then the reading of that one shall be acted upon; and if all three

meters are manifestly inaccurate then the charges for the period of time in question shall be a just charge having regard to the average of prior periods and the circumstances of the case.

10. Accuracy and testing of meters. Should any dispute arise between the parties to this agreement as to the accuracy of the readings obtained under the preceding clause either party may upon giving notice to the other have one or all the meters tested by the Professor of Electrical Technology of the Indian Institute of Science and if upon these tests being made the inaccuracy is found to be more than two and a half per cent the Mysore Government's accounts shall be adjusted as may be required. Should the inaccuracy prove to be less than two and a half per cent no adjustment shall be made. The expenses of such testing shall be borne by the Mysore Government in the event of the account requiring adjustment but if no adjustment follows then the expenses shall be borne by the party at whose instance the test is made.

11. Tariff. The Government of Madras shall take the energy and the charges for the energy supplied shall be according to the following sliding scale:-

(a) Quantity of energy supplied in the month (Board of Trade Units) supplied as per the next following clause.	Rate per Board of Trade Unit.
Up to 374,999 units ..	0.9000 of an anna per unit.
375,000 to 399,999 units ..	0.8700 "
400,000 to 424,999 " ..	0.8400 "
425,000 to 449,999 " ..	0.8100 "
450,000 to 474,999 " ..	0.7800 "
475,000 to 499,999 " ..	0.7500 "
500,000 to 524,999 " ..	0.7200 "
525,000 to 549,999 " ..	0.6900 "
550,000 and above ..	0.6600 "

(b) The rates in (a) above shall be day-light rates for 12 hours namely, 6 A.M. to 6 P.M. or any other period of 12 hours to be agreed upon from time to time to suit the Madras Government's work at Metur and also the above rates shall apply for all night consumption except as provided for in the next following clause.

(c) For all power consumption after the period referred to in (b) above the rates per unit shall be 0.40 anna per unit for the power consumed during any period of not less than three hours in which the average load is not less than 750 K.W. The consumption under this clause shall not be used to determine the rate at which the power supplied under (b) above will be billed.

(d) When the heavy motor driven construction plant is erected and ready for service the Government of Madras shall notify the fact to the Government of Mysore and from that date the charges for energy shall be subject to a minimum charge of 300,000

units per mensem at 0.9000 anna per unit, and for this purpose the period from when the full supply is available under Clause 7 of this agreement to the date when the above-mentioned notification is given shall be limited to 6 months.

(e) When, owing to natural deceleration of construction, the normal power requirements diminish the minimum charge specified in 11 (d) above shall be reduced proportionately with the reduced power requirements subject to an absolute minimum charge for 100,000 units, but no reduction in the minimum charge will take place before 31st March 1933.

12. Monthly accounts. The Mysore Government shall submit to the Madras Government a statement of accounts of the electrical consumption during each calendar month and the Madras Government shall pay the amount due within thirty days of the receipt of that account into whatever treasury or Bank Mysore Government may designate.

13. Liquidated damages for power supply stoppages. The liquidated damages for power supply stoppages shall be -

(a) Rs1000/- per hour or part of an hour after one hour during the working period of the construction plant.

(b) Rs100/- per hour or part of an hour after one hour when the construction plant is not working.

Provided, however, that no penalty is payable if the stoppage is due to cause beyond the Mysore Government's control such as War, riots, storms and floods.

14. Period of agreement. This Agreement shall continue up to June 30th, 1933 and for so long thereafter as power is required for the construction of the Metur Dam Works. The Madras Government shall give not less than three months notice of the expected date of completion of the construction.

15. Arbitration. Any question dispute or difference arising as to the meaning or due fulfilment by either of the parties of this Agreement or to any matter or thing arising under or out of the same in any manner or way shall be referred to the arbitration of an arbitrator to be named (failing agreement) by the Government of India on the application of either of the parties and every award of the arbitrator shall be binding on the party and this shall be deemed to be a reference to arbitration within the meaning of the Indian Arbitration Act,1899.

4496-7/ PP87-27-2

Encs 3 each. 7/11/28

ISSUED.

Dear Sir,

I am desired to forward herewith copy of a draft reply proposed to be sent to the Residency on the subject of the supply of electric power to the Metur Dam Works together with copies of the revised draft agreement and of the statement showing the changes proposed in the draft agreement forwarded by the Madras Govt. The draft letter to the Residency will be issued in 3 or 4 days. In the meanwhile I am to request that if you have any further suggestions to make in the matter, they may be kindly communicated to me very early.

Yours sincerely,

Chief Secretary.

To

The Chief Electrical Engineer.

" Secretary, Elec. Deptt.

No. A/E3

CB3163

MYSORE PUBLIC WORKS DEPARTMENT,
CENTRAL OFFICE, KRISHNARAJASAGARA WORKS,

Dated Bangalore, 13th February 1928.

Dear Sir,

your D.O. No 4497/C3 dated 7th Feb

8-9
13/2

The draft reply to the Residency on
Connection with the Safety of Electric power
to the Metur Dam Seems to be in order
However, I think it may be shown to
the Chief Electrical Engr before issue
So that no point may be overlooked.
I am not able to attend
office owing to a bad wound in my
foot otherwise I would have consulted
him myself

Yours sincerely
V. R. Seshachar

N. Madhavarao Esq BA BL,
Chief Secretary

D. O. No. 1802.

OFFICE OF THE CHIEF ELECTRICAL ENGINEER
TO THE GOVT. OF MYSORE.

Bangalore 14th Feb: 1928.
(S. India.)

CB 3164.

Dear Mr. Madhava Rao,

METUR POWER SUPPLY.

I have your D.O.No.4496/C.B. dated 11th instant together with the enclosures thereto. I think the letter to the Secretary to the Resident and the draft agreement are in order, and therefore have no further suggestions to make.

In paragraph 13 of the draft agreement you have at the beginning of last line added the word "Major", which I take it to mean that exemption from the penalties is provided for only in the case of major wars, riots, storms, etc. I do not think this word "Major" should be included in the draft agreement, as a very small storm may smash a good many insulators, or even destroy an entire transmission line structure, which would cause a stoppage of power for more than one hour. A very small Riot in the village might also cause a stoppage of power for more than an hour. I think the word "Major" should be deleted, as we should be exempted from penalty from any cause beyond our control irrespective of its magnitude.

Yours sincerely,

S. G. Forbes

N. Madhava Rao, Esq., B.A., B.L.,
Chief Secretary to the Government
of His Highness the Maharaja of Mysore,
BANGALORE.

SGF-CSC.

P.S. If it is vis major and has a separate legal meaning I have no objection

SGF 14/2/28

To Legy Law Dept with Compliments

DMH 15/2

The draft seems all right - may be approved

Chief Secy with Compts

DMH 15/2

DRAFT AGREEMENT.

1. Agreement. — Agreement made this day of 1928, between the Government of Mysore of the one part and the Government of Madras of the other part Whereby it is agreed as follows:-

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3. Receiving Station at Metur and its equipment. — The Governmentof Madras shall permit the Government of Mysore to occupy free of charge four 20 feet bays for the full width of the building in the existing Power House at Metur or such other accommodation in and adjacent to the Power House as may be found necessary and agreed upon between the parties together with necessary space outside of the building for the dead -end structure and lightning arrester installation.

4. Responsibility for Mysore Government's apparatus at Metur. — The Government of Madras shall be responsible to the Government of Mysore for the safe

custody of all the Mysore Government's apparatus at Metur and in the event of loss by theft or damage by fire (except fire originating in the property of the Government of Mysore) shall replace or repair the apparatus lost or damaged.

5. Accommodation for operating establishment at Metur.

The Government of Madras shall provide at Metur and to the standard provided for Madras Government servants of similar status free unfurnished housing, water, sanitation and electric lighting for the Mysore Government operating establishment for the duration of supply and during the construction period.

The Mysore Government is not to be charged by Madras Government compensation or royalty in any shape or form on account of their works on Government land within the Madras Territory.

6. Maximum demand.

The average demand of 2040 K.W. approximately at or above 0.75% power factor shall be available normally for 12 hours per day but after 12 hours telephone notice this power shall be available for 24 hours per day. The normal night power requirements will be available without notice. The telephone line necessary for this purpose shall be put up and maintained by the Mysore Government.

The normal peak load shall not exceed 3500 K.W. at or above 0.8 power factor.

7. Commencement of supply.

A partial supply of 750 K.W. shall be available by November 14th 1928, i.e., 9½ months from the 30th January 1928, i.e., the date of preliminary acceptance of the agreement; full supply shall be available within 4 months from the commencement of the above partial supply. No penalty shall be incurred if the supply is not ready on these dates by reason of causes beyond the control of Mysore Government.

8. Transmission Line.

The factor of safety of all portions of the transmission line shall be at least two under all conditions, the maximum wind pressure being 10 lbs. per square foot with an addition of 10 per cent for every 1000 feet of elevation above sea level and shall be according to Mysore Government standard practice. Any changes in the standard practice required to be made by the provision of any rule having the force of law, shall be effected at the cost of the Government of Madras.

9. Meters.

The energy supplied shall be measured by means of three similar three-phase meters which shall be supplied and maintained by the Mysore Government, the Madras Government shall pay the full cost of supplying and maintaining two of these meters; each three phase meter shall be complete with a separate set of current and potential transformers. The meters shall be read monthly and the consumption shall betaken to be the average of thereading of the three meters but in the event of one of the said meters varying more than 2.5 per cent from the average of the other two meters the mean between these two shall be taken, if only one meter shall be considered accurate than the reading of that one shall be acted upon; and if all three meters

are manifestly inaccurate then the charges for the period of time in question shall be a just charge having regard to the average of prior periods and the circumstances of the case.

10. Accuracy and testing of meters.

Should any dispute arise between the parties to this agreement as to the accuracy of the readings obtained under the preceding clause either party may upon giving notice to the other have one or all the meters tested by the Professor of Electrical Technology of the Indian Institute of Science and if upon these tests being made the inaccuracy is found to be more than two and a half per cent the Mysore Government's accounts shall be adjusted as may be required. Should the inaccuracy prove to be less than two anda half per cent. no adjustment shall be made. The expenses of such testing shall be borne by the Madras Government in theevent of the account requiring adjustment but if ano adjustment follows then the expenses shall be borne by the party at whose instance thetest is made.

11. Tariff.

The Government of Madras shall take the energy and the charges for the energy supplied shall be according to the following sliding scale:-

Quantity of energy supplied in the month (Board of Trade Units) supplied as per the next following clause.		Rate per Board of Trade Unit.
Up to 374,999 units	..	0.9000 of an anna per unit.
375,000 to 399,999 units	..	0.8700 "
400,000 to 424,999 "	..	0.8400 "
425,000 to 449,999 "	..	0.8100 "
450,000 to 474,999 "	..	0.7800 "
475,000 to 499,999 "	..	0.7500 "
500,000 to 524,999 "	..	0.7200 "
525,000 to 549,999 "	..	0.6900 "
550,000 and above	..	0.6600 "

(b) The rates in (a) above shall be day-light rates for 12 hours namely, 6 A.M. to 6 P.M. or any other period of 12 hours to be agreed upon from time to time to suit the Madras Government's work at Metur and also the above rates shall apply for all night consumption except as provided for in thenext following clause.

(c) For all power consumption after the period referred to in (b) above the rates per unit shall be 0.40 anna per unit for the power consumed during any period of not less than three hours in which the average load is not less than 750 K.W. The consumption under this clause shall hot be used to determine the rate at which the power supplied under (b) above will be billed.

(d) When the heavy motor driven construction plant is erected and ready for service the Government of Madras shall notify the fact to the Government of Mysore and from that date the charges for energy shall be subject to a minimum charge of 300,000

units per mensem at 0.9000 anna per unit, and for this purpose the period from the date when the full supply is available under clause 7 of this agreement to the date when the above mentioned notification is given shall be limited to 6 months.

(e) When, owing to natural deceleration of construction, the normal power requirements diminish the minimum charge specified in 11 (d) above shall be reduced proportionately with the reduced power requirements subject to an absolute minimum charge for 100,000 units, but no reduction in the minimum charge will take place before ~~January~~ March 30th 1932. March 31st 1933.

12. Monthly accounts. The Mysore Government shall submit Send. to the Madras Government a statement of accounts of the electrical consumption during each calendar month and the Madras Government shall pay the amount due within thirty days of the receipt of that account into (whatever treasury or Bank Mysore Government may designate.)

13. Liquidated damages for power supply stoppages. (1) The liquidated damages for ~~power~~ supply stoppages shall be -

(a) Rs1000/- per hour or part of an hour after one hour during the working period of the construction plant;

(b) Rs100/- per hour or part of an hour after one hour when the construction plant is not working;

Sub clause (2) Provided, however, that no penalty by way of liquidated damages is payable if the stoppage is due to cause beyond the Mysore Government's control such as War, riots, storms, Vis major, and floods.

This para may be replaced by para 7 annexed

9-2

14. Period of agreement. This Agreement shall continue up to June 30th, 1933 and for so long thereafter as power is required for the construction of the Metur Dam Works. The Madras Government shall give not less than three months notice of the expected date of completion of the construction.

15. Arbitration. Except where the Indian Electricity Act 1910 otherwise provides any question dispute or difference arising as to the meaning or due fulfilment by either of the parties of this Agreement or to any matter or thing arising under or out of the same in any manner or way shall be referred to the arbitration of an arbitrator to be named (failing agreement) by the Government of India on the application of either of the parties and every award of the arbitrator shall be binding on the party and this shall be deemed to be a reference to arbitration within the meaning of the Indian Arbitration Act, 1899.

15

The Govt of Madras shall reimburse the Govt of Mysore in respect of any income-tax leviable by Govt of India on the earnings from the power supplied under this Agreement.

14. Period of agreement. This agreement shall continue up to June 30th, 1983 and for so long thereafter as power is required for the construction of the Metur Dam Works. The Madras Government shall give not less than three months notice of the expected date of completion of the construction.

15. Income-tax. The Government of Madras shall reimburse the Government of Mysore in respect of any income-tax leviable by the Government of India on the earnings from the power supplied under this Agreement. The Govt of Mysore shall not be liable to pay any compensation or royalty in any shape or form on account of their work within the Madras limits.

16. Arbitration. Except where the Indian Electricity Act 1910 otherwise provides, any dispute difference or question shall arise between the Government of Mysore and the Government of Madras as to the construction, meaning or effect of this agreement or anything herein contained or the rights or liabilities of the Government of Mysore or the Government of Madras under this agreement or otherwise in relation to the premises, then and in such case every such dispute difference or question shall be referred to two arbitrators one to be appointed by each party or their umpire pursuant to the Arbitration Act (1889) or to any statutory modification or re-enactment thereof for the time being in force, provided that if such arbitrators shall in any case fail to agree as to an umpire such umpire shall be appointed by the Government of India upon the application of either party to this agreement.

Act IX of 1899

3164

.....Secretariat.

.....Branch.

5-106
16-2-28

Subject:-

Power supply to Meter.

For Orders

After submitting to the Dewan papers relating to the above subject, I circulated copies of the draft letter and agreement to (1) Secy. El Dept (2) Chief Electrical Engineer & (3) Legal Remembrancer for further Suggestions & criticisms. They approved the drafts are in order.

The papers are submitted for

Dewan)

16-2-28

No. Pol. 961 / PP 87-27—3 dated 17 2/28

To

The Secretary to the Resident.

S i r,

I am directed to reply to letter No. 20119-D 27-5, dated 16th January 1928, from the Secretary to the Govt. of Madras Public works and Labour Department, --- forwarded with your Memorandum No. 515, dated 18th January 1928, on the subject of supply of power to Metur.

2. In the course of the negotiations, it was understood that full power supply would be taken for 60 months. The Madra Govt. having since found it necessary to adopt a definite time period terminating on the 30th June 1933, the period ~~xxxx~~ of full power supply is reduced from 60 to 50 months. The rates per unit provided in paragraph 11 (a) of the draft agreement have, therefore, to be proportionately increased and to this the Government of Madras have informally signified their consent.

3. The Madras Government have also -- agreed to reimburse the Mysore Government for any income-tax that the latter might have to pay on their earnings under the agreement. In view of the assurance of the Madras Government on the point, it is not specifically referred to in the draft agreement.

4. As regards enforcing the provisions in the Indian Electricity Act and rules

rules thereunder, it is noted that the Madras Government recognise that the circumstances of the case are special and consider it unnecessary to apply many of the provisions of the Act which are designed primarily to protect the interests of private consumers. They have in particular agreed to the overhead transmission (and other equipment) being designed on Mysore Government standard practice and they are ready to relax the provisions of the Rules to the extent necessary for this purpose. His Highness' Government appreciate the readiness of the Madras Government to forward the scheme by giving these facilities. They wish only to express the hope that, should any changes from the Mysore standard practice be required in special cases or in compliance with legal provisions that cannot be relaxed, the extra cost involved will be borne by the Madras Government and also that, in calculating the stipulated time for the delivery of power, due allowance will be made for any delays entailed by such changes.

5. With these remarks, I am to enclose herewith a revised draft agreement and a statement showing the changes now proposed and the reasons therefor. These changes are, for the most part,

of a minor or elucidatory character and will, it is hoped, be acceptable to the Madras Government.

I have &c.,

Chief Secretary to Government.

Statement showing the changes made in the draft agreement and reasons therefor.

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Para 2. Conditions of Supply.

The word " periods " has been changed into " Cycles." The description of the transmission line has also been changed to read "The power will be transmitted to Metur over a duplicate circuit transmission line" instead of "over duplicate -- transmission lines."

Para 3. Receiving Station at Metur and its equipment.

In this paragraph a change has been made to provide for four 20 feet bays -- instead of three.

Para 5. Accomodation for generating establishment at Metur.

This paragraph has been changed to definitely provide for housing Mysore -- Government establishment at Metur during the construction period as well as during the operating period. Consequently, the words " if possible " have been omitted.

Para 5 (a)

A new paragraph has been added which provides that no compensation or royalty in any shape or form shall be payable by the Mysore Government to the Madras Govt. (Vide paragraph III last sub-para of Mr. Forbes letter No.1111 dated 6th December 1927 to Mr. Henshaw.)

Para 6. Maximum demand.

The average demand as fixed during the negotiations is 2040 K.W. approximately and this has been provided for in this

paragraph. Provision is also made for normal night power requirements.

Para 7. Commencement of Supply.

The date of preliminary acceptance is the 30th January 1928, and orders -- have been issued to start work pending conclusion of the formal agreement. -- Therefore, this paragraph has been --- amended to provide for the dates on --- which operation and supply of power ---- shall be ready. A provision has also - been made that no penalty shall be --- incurred if the supply is not ready on dates specified by reason of causes -- beyond the control of the Mysore Government.

Para 8. Transmission Line.

At the end of this paragraph the words " and shall be according to Mysore Government Standard Practice " have been added. (Vide para 4 of the letter.)

Para 11. Tariff.

The rates in para 11 (a) have been increased in the ratio of 60 : 50 as -- explained in para 1 of the letter.

The following sentence has been -- added at the end of the para 11 (c)-

" The Consumption under this clause shall not be used to determine the rate at which the power supply under (b) above will be billed."

In paragraph 11 (d) the rate per unit for the minimum consumption has been change from 0.75 of an anna per unit to 0.90 of an anna per unit corresponding to the rate in para 11 (a).

In para 11 (e) the following words have been added in the end:-

" but no reduction in the minimum -- charge will take place before the 31st -- March 1933."

Para 13. Liquidated damages for power supply stoppages.

The proviso in this clause is recast as under:-

(1) The liquidated damages for power supply stoppages shall be -

(a) Rs. 1000/- per hour or part of an hour after one hour during the working period of the --- construction plant.

(b) Rs. 100/- per hour or part of an hour after one hour when the construction plant is not working.

(2) Provided, however, that no penalty by way of liquidated damages is payable - under the above clause (1),(a) and (b) if the stoppage is due to causes beyond the Mysore Government's control such as Vis Major, War, riots, storms, fire and floods.

Para 16. Arbitration.

The words "Except where the Indian Electricity Act 1910 otherwise provides" at the commencement of the paragraph have

been omitted. The rest of the paragraph has been ~~&~~ recast as shown below, according to legal advice:-

The Madras Government and the Mysore Government hereby agree that, if at any time there should arise any dispute between the Madras Government and the Mysore Government touching the interpretation or operation or carrying out of this agreement, such dispute shall be referred for settlement to arbitration, or if the parties so agree shall be -- submitted to the Government of India."

Yes

DRAFT AGREEMENT.

1. Agreement.

Agreement made this day of 1928, between the Government of Mysore of the one part and the Government of Madras of the other part whereby it is agreed as follows:-

2. Conditions of supply.

The Government of Mysore shall supply at the receiving Station in the Metur Dam --- Works electrical energy in the form of a 3 phase alternating current at a pressure of (3300) three thousand three hundred volts across phases and a frequency of fifty -- cycles per second and the supply shall be available continuously throughout the whole period of the agreement. The power will be transmitted to Metur over a duplicate circuit transmission line and there stepped -- down by means of three 2200 K.V.A. three-phase transformers with a fourth transformer as a spare. The power will be converted from 25 cycles to 50 cycles by means of 3 motor generator sets each of not less than 1500 K.V.A. output.

3. Receiving Station at Metur and its equipment.

The Government of Madras shall permit the Government of Mysore to occupy free of --- charge four 20 feet bays for the full width of the building in the existing Power House at Metur or such other accomodation in and adjacent to the Power House as may be found necessary and agreed upon between the ---- parties together with necessary space outside of the building for the dead-end structure and lightning arrester installation.

4. Responsibility for Mysore Government's apparatus at Metur.

The Government of Madras shall be responsible to the Government of Mysore for the safe custody of all the Mysore Government's apparatus at Metur and in the event of loss by theft or damage by fire (except fire -- originating in the property of the Government of Mysore) shall replace or repair the apparatus lost or damaged.

5. Accomodation for operating establishment at -- Metur.

The Government of Madras shall provide at Metur and to the standard provided for -- Madras Government servants of similar --- status free unfurnished housing, water, -- sanitation and electric lighting for the - Mysore Government operating establishment for the duration of supply and during the construction period.

5 (a) Compensation or Royalty for works on Government -- lands.

The Mysore Government is not to be charged by Madras Government compensation or ---- royalty in any shape or form on account of their works on Government land within the Madras Territory.

6. Maximum demand.

The average demand of 2040 K.W. approximately at or above 0.85 power factor shall be available normally for 12 hours per day but after 12 hours telephone notice this - power shall be available for 24 hours per day. The normal night power requirements will be available without notice. The -- telephone line necessary for this purpose shall be put up and maintained by the Mysore Government.

The normal peak load shall not ----

exceed 3500 K.W. at or above 0.8 power -- factor.

7. Commencement of supply.

A partial supply of 750 K.W. shall be ---- available by November 14th 1928, i.e., 9½ months from the 30th January 1928, i.e., the date of preliminary acceptance of the agreement; full supply shall be available within 4 months from the commencement of the above partial supply. No penalty shall be incurred if the supply is not -- ready on these ~~days~~ date by reason of causes - beyond the control of Mysore Government.

8. Transmission Line.

The factor of safety of all portions of the transmission line shall be at least two -- under all conditions, the maximum wind --- pressure being 10 lbs. per square foot --- with an addition of 10 per cent for every 1000 feet of elevation above sea level --- and shall be according to Mysore Government standard practice.

9. Meters.

The energy supplied shall be measured by means of three similar three-phase meters which shall be supplied and maintained by the Mysore Government; the Madras Government shall pay the full cost of supplying and maintaining two of these [illegible] -- meters; each three phase meter shall be complete with a separate set of current and potential transformers. The meters shall be read monthly and the consumption shall be taken to be the average of the -- reading of the three meters but in the -- event of one of the said meters varying -

more than 2.5 per cent from the average of the other two meters the mean between these two shall be taken. if only one meter shall be considered accurate then the reading of that one shall be acted upon; and if all three meters are manifestly inaccurate then the charges for the period of time in question shall be a just charge having regard to the average of prior periods and the -- circumstances of the case.

10. Accuracy and testing of meters.

Should any dispute arise between the parties to this agreement as to the accuracy of the readings obtained under the preceding --- clause either party may upon giving notice to the other have one or all the meters --- tested by the Professor of Electrical --- Technology of the Indian Institute of --- Science and if upon these tests being made the inaccuracy is found to be more than two and a half per cent the Mysore Government's accounts shall be adjusted as may be --- required. Should the inaccuracy prove to be less than two and a half per cent no -- adjustment shall be made. The expenses of such testing shall be borne by the Mysore - Government in the event of the account requiring adjustment but if no adjustment -- follows then the expenses shall be borne by the party at whose instance the test is made.

11. Tariff.

The Government of Madras shall take the energy and the charges for the energy --

supplied shall be according to the -- following sliding scale:-

(a) Quantity of energy supplied in the month (Board of -- trade Units) supplied as per the next following -- clause. | Rate per Board of Trade -- Unit.

Up to 374,999 units	.. 0.9000	of an anna per unit.
375,000 to 399,999 units	.. 0.8700	"
400,000 to 424,999 "	.. 0.8400	"
425,000 to 449,999 "	.. 0.8100	"
450,000 to 474,999 "	.. 0.7800	"
475,000 to 499,999 "	.. 0.7500	"
500,000 to 524,999 "	.. 0.7200	"
525,000 to 549,999 "	.. 0.6900	"
550,000 and above	.. 0.6600	"

(b) The rates in (a) above shall be day-light rates for 12 hours namely, 6 A.M to 6 P.M. or any other period of 12 hours to be agreed upon from time to time to suit the Madras Governments work at Metur and also the above rates shall apply for all night consumption except as provided for in the next following clause.

(c) For all power consumption after the -- period referred to in (b) above the rates per unit shall be 0.40 anna per unit for the power consumed during any period of not less than three hour in which the average load is not less than 750 K.W. The consumption under this clause shall not be used to ----

determine the rate at which the power supplied under (b) above will be --- billed.

(d) When the heavy motor driven construction plant is erected and ready for service the Government of Madras --- shall notify the fact to the Government of Mysore and from that date the charges for energy shall be subject to a minimum charge of 300,000 units per mensem at 0.9000 anna per unit, and for this purpose the period from when the full supply is available -- under Clause 7 of this agreement to the date when the above mentioned -- notification is given shall be limited to 6 months.

(e) When, owing to natural deceleration of construction, the normal power -- requirements diminish the minimum -- charge specified in 11 (d) above --- shall be reduced proportionately with the reduced power requirements subject to an absolute minimum charge for -- 100,000 units, but no reduction in the minimum charge will take place before 31st March 1933.

12. Monthly accounts. The Mysore Government shall ~~submit~~ send to the Madras Government a statement of accounts of the electrical consumption during each calendar month and the Madras Government shall pay the amount due within thirty

days of the receipt of that account. ~~into whatever treasury of Bank of Mysore Government may designate.~~

13. Liquidated damages for power supply stoppages. /. The liquidated damages for power supply stoppages shall be :-

(a) (1) Rs. 1000/- per hour or part of an hour after one hour during the working period of the construction plant.

(b) (2) Rs. 100/- per hour or part of an hour after one hour when the construction plant is not working.

2. Provided, however, that no penalty by way of liquidated damages is payable under the above clause (1), ~~and (2)~~ (a) (b) if the stoppage is due to causes beyond the --- Mysore Government's control such as Vis Major, war, riots, storms, fire and floods.

14. Period of Agreement. This agreement shall continue up to June 30th 1933 and for so long thereafter as power is required for the construction of the Metur Dam Works. The Madras Government shall give not less than three months notice of the expected date of completion of the construction.

15. Arbitration. The Madras Government and the Mysore -- Government hereby agree that, if at any time there should arise any dispute --- between the Madras Government and the -- Mysore Government touching the interpretation or operation or carrying out of - this agreement, such dispute shall be referred for settlement to arbitration

or if the parties so agree shall be submitted to the Government of India.